

TM 9-818

WAR DEPARTMENT TECHNICAL MANUAL

**10-TON 6 x 4 TRUCK
(MACK MODEL NR)**

WAR DEPARTMENT

14 JANUARY 1944

WAR DEPARTMENT TECHNICAL MANUAL

**TM 9-818*

**10-TON 6 x 4 TRUCK
(MACK MODEL NR)**



WAR DEPARTMENT

14 January 1944

*This manual supersedes TB 818-1, 30 April 1943. It also contains pertinent information from TB 800-21, 23 November 1943. For supersession of Quartermaster Corps 10-series technical manuals, see paragraph 1 d.

WAR DEPARTMENT
Washington 25, D. C., 14 January 1944

TM 9-818, 10-ton 6 x 4 Truck (Mack Model NR) is published for the information and guidance of all concerned.

[A. G. 330.7 (5 June 43)]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

DISTRIBUTION: X

(For explanation of symbols, see FM 21-6)

10-TON 6 x 4 TRUCK (MACK MODEL NR)

CONTENTS

PART ONE—VEHICLE OPERATING INSTRUCTIONS

SECTION		Paragraphs	Pages
I	Introduction	1	5-6
II	Description and tabulated data	2-3	7-25
III	Driving controls and operation	4-6	26-40
IV	Operation under unusual conditions	7-12	41-45
V	Inspection and preventive maintenance service	13-17	46-55
VI	Lubrication	18-19	56-68
VII	Tools and equipment stowage on the vehicle	20-22	69-72

PART TWO—VEHICLE MAINTENANCE INSTRUCTIONS

VIII	Modification records	23	73
IX	New vehicle run-in test	24-26	74-78
X	Organization preventive maintenance service	27	79-92
XI	Organization tools and equipment	28	93
XII	Trouble shooting	29-45	94-113
XIII	Engine—data, maintenance and adjustment in vehicle	46-57	114-126
XIV	Engine—removal and installation	58-59	127-139
XV	Clutch	60-62	140-144
XVI	Fuel system	63-73	145 176
XVII	Intake and exhaust systems	74-75	177-180
XVIII	Cooling system	76-85	181-190
XIX	Starting and generating system	86-91	191 199

TM 9-818**10-TON 6 x 4 TRUCK (MACK MODEL NR)**

		Paragraphs	Pages
SECTION	XX	Transmission.....	92-93 200-203
	XXI	Propeller shafts.....	94-96 204-207
	XXII	Front axle.....	97-101 208-213
	XXIII	Bogie (rear axle assembly).....	102-105 214-218
	XXIV	Rear axles.....	106-109 219-223
	XXV	Brake system.....	110-128 224-243
	XXVI	Wheels.....	129-137 244-250
	XXVII	Springs and shock absorbers....	138-141 251-257
	XXVIII	Steering.....	142-146 258-262
	XXIX	Tires.....	147-149 263-266
	XXX	Body and cab.....	150-159 267-277
	XXXI	Frame, fenders and running boards.....	160-165 278-283
	XXXII	Battery and lighting system....	166-172 284-294
	XXXIII	Instruments, controls, switches and horn.....	173-178 295-301
	XXXIV	Fire extinguisher.....	179-180 302
	XXXV	Shipment and temporary storage	181-183 303-307
REFERENCES.....			308 309
INDEX.....			310

PART ONE—VEHICLE OPERATING INSTRUCTIONS**Section I****INTRODUCTION**

	Paragraph
Scope	1

1. SCOPE.

a. This technical manual* is published for the information and guidance of the using arms personnel charged with the operation, maintenance, and minor repair of this materiel.

b. In addition to a description of the 10-ton 6 x 4 Truck (Mack), this manual contains technical information required for the identification, use and care of the materiel. The manual is divided into two parts. Part One, section I through section VII, contains vehicle operating instructions. Part Two, section VIII through section XXXV contains vehicle maintenance instructions for using arms personnel charged with the responsibility of doing maintenance work within their jurisdiction. Part Two is followed by a list of references and an index.

c. In all cases where the nature of the repair, modifications or adjustment is beyond the scope or facilities of the unit, the responsible ordnance service should be informed, so that trained personnel with suitable tools and equipment may be provided, or proper instructions issued.

d. This manual contains operating and organization maintenance instructions from the following Quartermaster Corps 10-series technical manuals, and, together with TM 9-1818A and TM 9-1818B, it supersedes them:

- (1) TM 10-1197, 19 September 1941.
- (2) TM 10-1421, 19 September, 1941.
- (3) TM 10-1545, 22 December 1942.

*To provide operating instructions with the materiel, this technical manual has been published in advance of complete technical review. Any errors or omissions will be corrected by changes or, if extensive, by an early revision.

TM 9-818
2

10-TON 6 x 4 TRUCK (MACK MODEL NR)



RA PD 310500

Figure 1—Left Front View of 10-ton, 6 x 4 Truck

Section II

DESCRIPTION AND TABULATED DATA

	Paragraph
Description	2
Data	3

2. DESCRIPTION.

a. The cargo truck described in this manual consists of a six-wheel, Diesel-powered chassis, with drive through the four rear wheels, a cab having a convertible type of canvas top, and a wooden cargo body with tail gate, tarpaulin and bows, and troop seats (figs. 1, 2, 3 and 4).

b. **Chassis.** Units of the chassis are in conventional automotive arrangement, in assembly with the customary frame structure, having two channel members as fundamentals.

(1) **POWER PLANT** (fig. 5). The vehicle is powered by a six-cylinder, four-cycle, valve-in-head, Diesel engine (figs. 6 and 7) which is three-point mounted at the front of the chassis. Fuel injection is by an American Bosch pump, a multiple-unit type, and the built-in drive has incorporated an automatic-advance coupling known as a Synchrovance. Cooling is by a frontal-type radiator having a vertical tube-and-fin core. The transmission (fig. 8) is mounted on the rear end of the engine, and is driven through a single-disk friction clutch. The transmission has ten speeds forward and two reverse—that is, five fast ratios and five slow ratios forward. Fifth of the fast group is an overdrive, and fifth of the slow group is direct drive. There are two shift levers—a five-position and a two-position lever.

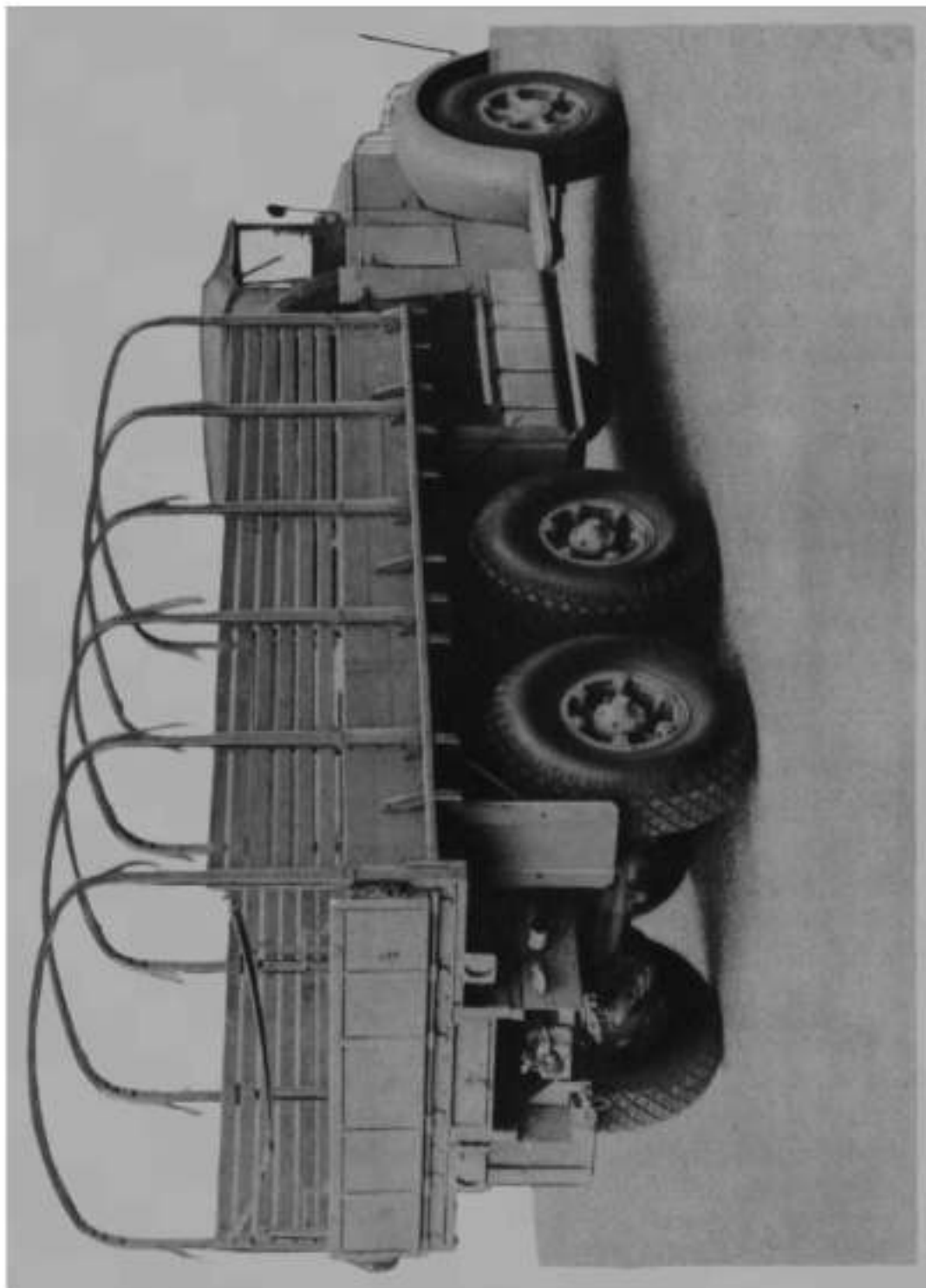
(2) **DRIVE.** A propeller shaft transmits the power back to the two rear axles. There is a power divider, not a free differential, in the front rear axle from which the in-line drive to the rear axle is through a short propeller shaft (fig. 10). The front axle is not a driving axle.

(3) **AXLES.** The front axle (fig. 9) is of the non-driving type of conventional, automotive, I-beam design with steering knuckles. Steering control is by the steering wheel through the steering gear and linkage and the front wheels. Rear axles (fig. 10) are of the full-floating type with flat-banjo housings, which have spindle tubes and center housings unified as one piece.

(4) **SUSPENSION.** At the front, springs are semielliptic with the axle clamped at the center. There are hydraulic shock absorbers at the front (fig. 11). The rear axles are attached through rubber shock insulators to the ends of two longitudinal, beam-type springs which are mounted at their centers on trunnions, on which they can pivot. Axle torque is taken by two tubular rods with ball end connections, which are attached to the tops of the gear carrier housings, and are

TM 9-818
2

10-TON 6 x 4 TRUCK (MACK MODEL NR)



RA PD 310501

Figure 2—Right Rear View of 10-ton, 6 x 4 Truck